**Module 1**

Background and Foundation of Nursing Informatics (Weeks 2-3)

**Topics**
- Sciences within Nursing Informatics
- Nurses as Knowledge Workers
- Exploring the Data to Wisdom concept

**Modules Objectives**
- Understand the data to wisdom model
- Describe how computer science, information science, and nursing science form the basis for nursing informatics.
- Explore how nurses are knowledge workers.

**Assignments**
- Week 1 Discussion #1 (10 pts)
- Week 2 discussion #2 (10 pts)
- Week 3 Blog Entry #1 (5 pts)
Module 2
Informatics Competencies (Weeks 4-6)

Lectures

PowerPoint Slides

Assignments

Week 4 discussion #3 (10 pts)
Week 4 Quizzes (4 at 5 pts each)
Week 5 blog #2 (5 pts)
Week 6 discussion #4 (10 pts)

Topics
Basic technology skill competencies
• Word
• Excel
• PowerPoint
Basic knowledge competencies
• Databases
• Information generation
Role competencies
• QSEN

Modules Objectives
Demonstrate an understanding of basic computer competencies.
Identify own learning needs relating to informatics competencies.
Relate the Quality and Safety in Nursing Education informatics knowledge, skills, and attitudes to the role of the Informatics Nurse.

Informatics and:
• Research/evidence-based practice
• Clinical information management
• Telehealth
• Consumer information
• Project management (change management)

Module 3
Applications and Roles (Weeks 7-11)

Lectures

PowerPoint Slides

Assignments

Week 7 discussion #5 (10 pts)
Week 7 Library Tools Quiz (5 pts)
Week 8 discussion #6 (10 pts)
Week 9 Roles Paper (30 pts)
Week 10 Blog #3 (5 pts)
Week 10 Website Eval (25 pts)
Week 11 discussion #7 (10 pts)

Topics
Informatics and:
• Research/evidence-based practice
• Clinical information management
• Telehealth
• Consumer information
• Project management (change management)

Modules Objectives
Examine the role of the practicing Informatics Nurse against practice standards.
Describe how a standardized nursing language affects professional nursing practice.
Critique a health-related website against quality standards.
Explain how technology can support quality initiatives, management, and outcomes.
**Module 4**

Current Issues in Informatics (Weeks 12-16)

**Assignments**

**Lectures**

**PowerPoint Slides**

- **Topics**
  - Health Information Privacy
  - Clinical Decision Support Systems
  - Knowledge generation in large data sets
  - QSEN Reflections

- **Modules Objectives**
  - Explain how HIPAA affects the handling of health information.
  - Examine current issues related to Nursing Informatics.
  - Examine the utility of clinical decision support systems in the clinical setting.
  - Describe the clinical utility of data mining in large data sets.

- **Assignments**
  - Week 12 discussion #8 (10 pts)
  - Week 12 Privacy Course (20 pts)
  - Week 13 Innovations (35 pts)
  - Week 13 Blog #4 (5 pts)
  - Week 15 discussion #9 (10 pts)
  - Week 16 discussion #10 (10 pts)
# Informatics

**Definition:** Use information and technology to communicate, manage knowledge, mitigate error, and support decision making.

<table>
<thead>
<tr>
<th>Competency</th>
<th>Strategy</th>
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<tbody>
<tr>
<td><strong>Knowledge</strong></td>
<td></td>
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<tr>
<td>Explain why information and technology skills are essential for safe patient care</td>
<td>Innovations Paper Blog #1</td>
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<tr>
<td>Identify essential information that must be available in a common database to support patient care</td>
<td>Discussion #3 Discussion #9</td>
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<tr>
<td>Contrast benefits and limitations of different communication technologies and their impact on safety and quality</td>
<td>Discussion #1 (dissemination) Discussion #4 (competencies) Discussion #10 (competencies)</td>
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<tr>
<td>Describe examples of how technology and information management are related to the quality and safety of patient care</td>
<td>Innovations Paper</td>
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<tr>
<td>Recognize the time, effort, and skill required for computers, databases and other technologies to become reliable and effective tools for patient care</td>
<td>Discussion #3 Roles Paper Word, Excel, PP Tutorials Discussion #6</td>
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<tr>
<td><strong>Skills</strong></td>
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<tr>
<td>Seek education about how information is managed in care settings before providing care</td>
<td>Discussion #1 and #2</td>
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<tr>
<td>Apply technology and information management tools to support safe processes of care</td>
<td>Innovations Paper Discussion #9</td>
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<tr>
<td>Navigate the electronic health record</td>
<td>Clinical Courses</td>
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<tr>
<td>Document and plan patient care in an electronic health record</td>
<td>Clinical Courses Discussion #1</td>
</tr>
<tr>
<td>Employ communication technologies to coordinate care for patients</td>
<td>Discussion #1 Discussion #4 Discussion #10</td>
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<tr>
<td>Respond appropriately to clinical decision-making supports and alerts</td>
<td>Blog #4</td>
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<tr>
<td>Use information management tools to monitor outcomes of care processes</td>
<td>Roles Paper Innovation Paper Discussion #6</td>
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<tr>
<td>Use high quality electronic sources of healthcare information</td>
<td>Website Evaluation Library Databases Tutorial Discussion #5 Blog #3</td>
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<tr>
<td><strong>Attitude</strong></td>
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<tr>
<td>Appreciate the necessity for all health professionals to seek lifelong, continuous learning of information technology skills</td>
<td>Blog #2 Word, PP, Excel Tutorials</td>
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<tr>
<td>Value technologies that support clinical decision-making, error prevention, and care coordination</td>
<td>Innovations Paper Blog #4</td>
</tr>
<tr>
<td>Protect confidentiality of protected health information in electronic health records</td>
<td>Discussion #8 Health Privacy Awareness Course</td>
</tr>
<tr>
<td>Value nurses' involvement in design, selection, implementation, and evaluation of information technologies to support patient care</td>
<td>Roles Paper Discussion #7</td>
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